

Chapter 26

214
SOURCES OF INFORMATION 67.

E. H. Pryde
Northern Regional Research Center
Agricultural Research
Science and Education Administration
U.S. Department of Agriculture
Peoria, Illinois 61604

BOOKS

The following texts are judged to be useful to the oil processing technologist. Chapter headings have been included to help the technologist decide whether or not the text would be of value to his personal or company's library. However, the chapter headings have been omitted for those books that are probably no longer in print.

American Oil Chemists' Society. 1978. Proceedings of the Short Course on "Processing and Quality Control of Edible Fats and Oils," June 26-28, 1978. J. Am. Oil Chem. Soc. 55:751-833.

Raw Materials Handling and Controls (E. H. Gustafson). Solvent Extraction of Soybeans (K. W. Becker). Mechanical Extraction (D. K. Bredeson). Refining and Degumming Systems for Edible Fats and Oils (R. A. Carr). Energy Conservation in Oil Refining (B. F. Brooks). Use of Bleaching Clays in Processing Edible Oils (L. L. Richardson). Separation Methods in Processing Edible Oils (E. R. Butterworth). Edible Oil Deodorization (A. M. Gavin). Principles and Catalysts for Hydrogenation of Fats and Oils (R. R. Allen). Interesterification of Fats (B. Sreenivasan). Analysis of Fats and Oils (H. J. Dutton). Oxidation and Antioxidants in Fat and Oil Processing (E. R. Sherwin). Finished Oil Handling and Storage (D. R. Erickson). Margarine and Margarine Oil, Formulation and Control (L. H. Wiedermann). Shortening Formulation and Control (A. E. Thomas, III).

American Oil Chemists' Society. 1976. Proceedings of the "World Conference on Oilseed and Vegetable Oil Processing Technology," March 1-5, 1976. J. Am. Oil Chem. Soc. 53:224-461.

Session I (Economic Considerations): World Supply and Demand for Oilseeds, Oils, and Meals (S. Mielke). Referee Chemists and Official Methods (W. E. Link). International Arbitration (E. Faure). Effect of Shipping on Quality of Seeds, Meals, Fats, and Oils (M. R. Spencer).

Session II (Processing Vegetable Oil-Bearing Materials): Characteristics and Composition of Vegetable Oil-bearing Materials (A. Langstraat). Loading, Unloading, Storage, Drying, and Cleaning of Vegetable Oil-bearing Materials (E. H. Gustafson). Oil Mill Energy Sources and Power Balances in a Palm Oil Operation (B. E. Fonade). Continuous Processing of Palm Fruit (B. de Ramecourt). Processing Peanuts and Cottonseed (E. J. Garcia M.). Processing High Oil Content Seeds in Continuous Screw Presses (J. A. Ward). Current Equipment for Mechanical Oil Extraction (L. H. Tindale and S. R. Hill-Haas). Cleaning, Cracking, Dehulling, Decorticating, and Flaking of Oil-bearing Materials (J. P. Galloway). Batch and Continuous Solvent Extraction (E. Bernardini). Continuous Solvent Extraction of Soybeans and Cottonseed (R. P. Hutchins). Continuous Solvent Extraction of Sunflower Seed, Groundnuts, Palmkernels, Rapeseed, and Copra (W. Stein and F.-W. Glaser). Survey of Current Solvent Extraction Equipment (E. D. Milligan). Energy Conservation in Solvent Extraction Plants (H. P. J. Jongeneelen). Safety in Solvent Extraction Plants--USA (J. E. Heilman). Safety in Solvent Extraction Plants--Europe (C. E. M. Critchfield). Processing Effects on Oil Quality (J. S. R. Ohlson). Protein Products and Hulls for Animal Foods (R. Roberts). Whole Seed Processing by Extrusion Cooking (E. Nielsen). Oilseed Flour for Human Food (F. G. Bastiaens). Standards for Protein Based Foods in Developing Countries (K. T. Achaya). Oilseed Vegetable Protein Concentrates (D. W. Johnson). Texturized Protein Products (R. Brian). New Technology in Oilseed Proteins (K. W. Becker and E. A. Tiernan).

Session III (Processing Vegetable Fats and Oils): Crude Oil Handling and Storage (J. P. Burkhalter). Special

Problems in Small Scale Operations (G. M. Neumunz). Small Scale Processing of Vegetable Oils (C. Baumann). Bleaching Practices in Europe (H. B. W. Patterson). Bleaching Practices in the U.S. (E. H. Goebel). Degumming, Refining, Bleaching, and Deodorization Theory (J. C. Cowan). Degumming and Refining Practices in the U.S. (R. A. Carr). Degumming and Refining Practices in Europe (B. Braae). Steam Refining (F. E. Sullivan). Miscella Refining (G. C. Cavanagh). Deodorization 1975 (C. T. Zehnder). Automation in Vegetable Oil Refineries (A. J. Duff).

Session IV (Fats and Oils Modification): Hydrogenation of Edible Oils (J. W. E. Coenen). Interesterification of Edible Oils (H. H. Hustedt). Fractionation and Winterization of Edible Fats and Oils (H. P. Kreulen). Blending, Chilling, and Tempering of Margarines and Shortenings (A. J. Houghton). Food Emulsifiers: Surface Activity, Edibility, Manufacture, Composition, and Application (J. B. Lauridsen).

Session V (Finished Products): Finished Oil Handling and Storage in the U.S. (L. M. Wright). Finished Oil Handling and Storage in Europe (G. M. R. Johansson). Salad and Cooking Oils (B. Lesieur). Margarine Oils, Shortenings, and Vanaspati (K.-F. Gander). Specialty Fats (F. R. Paulicka). Lecithin Production and Properties (W. Van Nieuwenhuyzen). Utilization of Lecithin (P. M. Scocca). Antioxidants for Vegetable Oils (E. R. Sherwin).

Session VI (Oil Processing Wastes and By-Products): Use or Disposal of By-Products and Spent Material from the Vegetable Oil Processing Industry in the U.S. (K. S. Watson and C. H. Meierhoefer). Use or Disposal of By-Products and Spent Material from the Vegetable Oil Processing Industry in Europe (C. H. Svensson). Liquid Waste Treatment in the Vegetable Oil Processing Industry--European Practices (G. Choffel). Liquid Waste Treatment in the Vegetable Oil Processing Industry--U.S. Practices (G. N. McDermott). Reflections on the Conference--European View (J. Pasman). Reflections on the Conference--U.S. View (T. H. Applewhite).

American Soybean Association. Soybean Digest Bluebook. P.O. Box 27300, St. Louis, Missouri 63141. Issued annually.

American Soybean Association. U.S. Department of Agriculture. State Experiment Station Research. Official Standards for Soybeans. A Glossary of Soybean Terms. Refiners of Soy Oil. Manufacturers and Handlers of Soy Foods. Manufacturers of Industrial Products. Equipment and Supplies for the Soybean Industry. Soybean Processing and Oil Refining--Equipment and Supplies. Services for the Soybean Industry. U.S. Processors. Foreign Processors. Soybean Statistical Tables.

Anderson, A. J. C. 1962. "Refining of Oils and Fats for Edible Purposes." 2nd rev. ed., P. N. Williams, ed., Pergamon Press/The Macmillan Co., New York.

1. Removal of Fat-insoluble Impurities. 2. Removal of Fat-soluble Impurities--Pretreatment by Degumming--Neutralization or De-acidification--Bleaching or Decoloration--Deodorization. 3. Process Control. 4. Complete Refinery Plants. 5. Statistical Information.

Bailey, A. E. 1950. "Melting and Solidification of Fats." Interscience Publishers, Inc., New York.

General and Theoretical Considerations. Laboratory Techniques. Melting and Solidification of Pure Compounds. Melting and Solidification of Mixtures. Solubility. Practical Melting and Solidification Processes.

Bednarczyk, N. E. 1969. "Edible Oils and Fats 1969." Noyes Development Corporation, Park Ridge, N.J.

Abstracts of selected U.S. patents on the following subjects: Shortenings. Margarine and Spreads. Salad Oils, Mayonnaise and Emulsified Dressings. Frying and Cooking Oils. Hard Butter. Oil Processing. Antioxidants and Stabilizers. Emulsifiers and Emulsions. Peanut Butter and Spreads. Chocolate Products.

Bernardini, E. 1973. "Oil and Fat Technology" (translated into English by V. Colucci). 2nd Revised Edition. Tecnologie, s.r.l., Rome.

Part I. Planning a Factory for Processing Oilseeds and Fats. Part II. Processing Oilseeds. Part III. Processing of Fats and Oils. Part IV. Tables.

Boekenoogen, H. A., editor. "Analysis and Characterization of Oils, Fats, and Fat Products." Vol. 1 (1964), Vol. 2 (1968), Interscience Publishers, New York.

Vol. 1. Classical Chemical Methods in Fat Analysis (J. Baltes). The Assay of Essential Fatty Acids (R. Reiser and M. C. Williams). The Application of Urea Inclusion Compounds in Fat Analysis (J. M. Martinez Moreno and A. V. Roncero). Dilatometry of Fats (J. Hannewijk, A. J. Haighton, and P. W. Hendrikse). The Analysis of Butter and Cheese. (J. G. Van Ginkel and J. B. Roos). The Analysis of Monoglyceride and Related Emulsifiers (G. F. Longman). The Determination of Fats in Oils, Especially in Linseed Oils (E. L. Delvaux and J. E. Bertrand). Nuclear Magnetic Resonance Spectroscopy as a Tool in Fat Chemistry (R. Keuning). The Use of Ion-Exchangers for the Analysis of Detergents (P. Voogt).

Vol. 2. Mass Spectrometry in Fat Analysis (E. Stenhagen). Measurement of Oil Colour (M. Naudet and E. Sam-buc). Paper and Thin-Layer Chromatography in Fat Chemistry (P. Vogel and T. Wieske). Analysis of Glycerides and Composition of Natural Oils and Fats (G. Jurriens). The Determination of the Position of Double Bonds in Fatty Acids (P. H. Begemann). The Chemistry and Analysis of Olive Oil (J. G. Tons). The Determination of Vitamins and Carotenoids in Fats (G. Brubacher).

Caldwell, B. E., R. W. Howell, R. W. Judd, and H. W. Johnson, Editors. 1973. "Soybeans: Improvement, Production, and Uses." American Society of Agronomy, Inc. Madison, Wisconsin.

Origin, U.S. History and Development, and World Distribution (A. H. Probst and R. W. Judd). Morphology (J. B. Carlson). Speciation and Cytogenetics (H. H. Hadley and T. Hymowitz). Qualitative Genetics (R. L. Bernard and M. G. Weiss). Quantitative Genetics and Breeding (C. A. Brim). Varietal Development (E. E. Hartwig). Management (J. W. Pendleton and E. E. Hartwig). Water and Water Relations (H. J. Mederski, D. L. Jeffers, and D. B. Peters). Mineral Nutrition (C. J.

de Mooy, J. Pesek, and E. Spalden). Nodulation and Nitrogen Fixation (G. Best, D. F. Weber, and C. Sloger). Photosynthesis and Seed Metabolism (W. L. Ogren and R. W. Rinne). Weed Control (L. M. Wax). Fungal Diseases (K. L. Athow). Bacterial Diseases (B. W. Kennedy and H. Tachibana). Virus Diseases (J. M. Dunleavy). Nematodes (J. M. Good). Insects (S. G. Turnipseed). World Oil and Protein Meal Situation (G. W. Kromer). Domestic Markets (J. P. Houck). Processing and Products (J. C. Cowan).

Christie, W. W. 1973. "Lipid Analysis. Isolation, Separation, Identification, and Structural Analysis of Lipids." Pergamon Press, Oxford.

The Structure, Chemistry and Occurrence of Lipids. The Isolation of Lipids from Tissues. Chromatographic and Spectroscopic Analysis of Lipids. General Principles. The Preparation of Volatile Derivatives of Lipids. The Analysis of Fatty Acids. The Analysis of Simple Lipid Classes. The Analysis of Complex Lipids. The Analysis of Molecular Species of Lipids. Enzymatic Hydrolysis of Lipids. The Analysis and Radioassay of Isotopically-labelled Lipids. A Summary.

Cocks, L. V., and C. van Rede. 1966. "Laboratory Handbook for Oil and Fat Analysts." Academic Press, London.

Oilseeds and Nuts, Cakes and Meals, and Animal Feeding Stuffs. Oils, Fats, Fatty Acids, and Fatty Alcohols. Glycerol. Analyses in Connection with the Extraction, Refining, Bleaching, Hardening, and Other Processing of Oils and Fats. Fat Products. Specialist Methods and Techniques. The Analytical Characteristics and Fatty Acid Composition of the More Common Oils and Fats.

Devine, J., and P. N. Williams, Editors. 1961. "The Chemistry and Technology of Edible Oils and Fats." Proceedings of a Conference at Unilever Limited Research Department, Port Sunlight, England, March 10-12, 1959, Pergamon Press, Oxford.

Physical and Chemical Properties of the Constituents of Edible Oils and Fats (G. C. Hampson and B. J. F.

Hudson). Fatty Foods and the Pattern of Their Consumption in the United Kingdom (R. J. Brech). Processing of Oils and Fats for Edible Purposes (P. N. Williams). The Analysis of Oils and Fats (A. Crossley). The Determination of Linoleic Acid with Special Reference to the Isotopic Dilution Technique (G. J. van Beers). Gas/Liquid Chromatography, and its Application to the Analysis of Atheromatous Plaques (J. G. Keppler). Modern Spectroscopic and X-ray Techniques Applied to Oils and Fats (D. Chapman).

Emken, E. A., and H. J. Dutton, Editors. 1979. "Geometrical and Positional Fatty Acid Isomers." American Oil Chemists' Society, Champaign, Illinois.

Hydrogenation of Fats and Its Significance (H. J. Dutton). Analysis and Physical Properties of Isomeric Fatty Acids (C. R. Scholfield). Nutritional Role of Hydrogenated Fats (in Rats) (R. B. Alfin-Slater and L. Aftergood). Metabolism of Isomeric Fats in the Laying Hen (A. C. Lanser). Utilization and Effects of Isomeric Fatty Acids in Humans (E. A. Emken). Partially Hydrogenated Rapeseed and Marine Oils (J. Beare-Rogers). Effects of Isomeric Fats on Animal Tissue, Lipid Classes, and Atherosclerotic Lesions (F. A. Kummerow). Distribution of Dietary Geometrical and Positional Octadecenoate Isomers in Brain, Heart, Kidney, Liver, Lung, Muscle, Spleen, Adipose and Hepatoma (R. Wook). Selective Recognition of Geometric and Positional Isomers of Fatty Acids in vitro and in vivo (W. E. M. Lands). The Importance of Double Bond Position in the Metabolism of Unsaturated Fatty Acids (R. T. Holman). The Biosynthesis of Long-Chain Fatty Acids in Mammalian Systems (H. Sprecher and A. T. James).

FAO/WHO. 1977. "Dietary Fats and Oils in Human Nutrition." Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy.

Introduction. Definitions. Fat as a Source of Energy. The Use of Fat in Adult and Child Feeding. Essential Fatty Acids. The Role of Essential Fatty Acids in Early Development. The Role of Fat in the Prevention and Treatment of Cardiovascular Diseases, Obesity, and Diabetes Mellitus. Effects of Processing on the Nutritive Value of Fats and Oils Used in Human

Nutrition. Special Considerations. Recent Trends in Production, Trade, and Consumption of Fats and Oils. Impact of Plant and Animal Breeding and Management on Quality and Composition of Fats and Oils. Recommendations.

Gillies, M. T. 1974. "Shortenings, Margarines, and Food Oils, 1974." Noyes Data Corporation, Park Ridge, New Jersey.

Abstracts of selected U.S. patents issued since 1960 on the following subjects: Fluid Shortenings. Plastic Shortenings. Dry Shortenings. Margarines and Spreads. Salad Oils, Emulsified Dressings, and Mayonnaise. Frying and Cooking Oils and Fats.

Gutcho, M. 1979. "Edible Oils and Fats. Recent Developments, 1979." Noyes Data Corporation, Park Ridge, New Jersey.

Abstracts of selected U.S. patents in continuation of the Bednarczyk book on the following subjects: Extraction Processes. Purification. Stability Improvement. Modifying Fats by Hydrogenation. Margarine and Spreads. Frying and Cooking Oils and Fats. Salad Oils and Dressings. Confectioners' Fats. Flavor Oils. Emulsifiers. Peanut Butter. Fats in Foods. Additional Processes.

Institute of Shortening and Edible Oils, Inc., 1974. "Food Fats and Oils," 4th ed., 1750 New York Avenue, N.W., Washington, D.C. 20006.

Preface. Standard Texts on Fats and Oils. Importance of Fats. What Is a Fat? The Chemical Composition of Fats. The Fatty Acids. The Nutritional Aspects of Fats and Oils. Factors Affecting Physical Characteristics of Fats and Oils. Processing. Reactions of Fats and Oils. Products Prepared From Fats and Oils. Trends in Fat Consumption In the United States.

Kirschenbauer, H. G. 1960. "Fats and Oils. An Outline of Their Chemistry and Technology," 2nd Edition. Reinhold Publishing Corporation, Chapman and Hall, Ltd., London.

Lewkowitsch, J. "Chemical Technology and Analysis of Oils, Fats and Waxes." Vol. I (1938), Vol. II (1922), Vol. III (1923), 6th Edition,

revised by G. H. Warburton. Macmillan and Co., Limited, London.

This is an old but still occasionally useful and basic reference.

Link, W. E., Editor. 1974. "Official and Tentative Methods of the American Oil Chemists' Society," in two volumes, 3rd Edition, with annual revisions and additions. American Oil Chemists' Society, Champaign, Illinois 61820.

A. Sampling and Analysis of Vegetable Oil Source Materials. B. Sampling and Analysis of Oilseed By-products. C. Commercial Fats and Oils. D. Sampling and Analysis of Soap and Soap Products, Fatty Alkyl Sulfates, and Alkyl Benzene Sulfonates. E. Sampling and Analysis of Glycerin. F. Analysis of Sulfonated and Sulfated Oils. G. Sampling and Analysis of Soap Stock. H. Specifications for Reagents, Supplies, and Apparatus. I. Physical and Chemical Characteristics of Oils, Fats, and Waxes. J. Analysis of Lecithin. M. Evaluation of Test Methods. S. Recommended Practices for Testing Industrial Oils and Derivatives. T. Test Methods for Industrial Oils and Derivatives.

Markley, K. S., Editor. 1950 and 1951. "Soybeans and Soybean Products." Interscience Publishers, Inc., New York, N.Y.

Vol. I. History of Soybean Production (W. J. Morse). World Soybean Production and Trade (E. L. Burtis). Structure and Genetic Characteristics of the Soybean (L. F. Williams). Chemical Composition of Soybean Seed (W. J. Morse). Chemical Composition of Soybean Oil (B. F. Daubert). Chemical Characteristics of Soybean Oil (S. T. Bauer). Physical Properties of Soybean Oil (M. E. Jefferson). Proteins and Other Nitrogenous Constituents (S. J. Circle). Other Constituents of the Soybean (B. F. Daubert). Nutritive Factors in Soybean Products (H. H. Mitchell). Grading and Evaluation of Soybeans and Derived Products (E. Freyer). Handling and Storage of Soybeans (L. E. Holman). Biological Processes in Stored Soybeans (M. Milner). Mechanical Processing of Soybeans (L. F. Langhurst).

Vol. II. Solvent Extraction Processes (L. F. Langhurst). Production and Utilization of Lecithin

(J. Stanley). Processing of Edible Soybean Oil (J. W. Bodman, E. M. James, and S. J. Rini). Nutritional Value of Soybeans and Soybean Products (H. J. Deuel, Jr.). Edible Soybean Oil Products (H. C. Black and K. F. Mattil). Soybean Oil By-Products (R. W. Lehman and N. D. Embree). Nonedible Soybean Oil Products (T. F. Bradley). Soybean Oil Meal for Livestock and Poultry (J. W. Hayward). Soybean Protein Food Products (R. S. Burnett). Soybean Protein Industrial Products (R. S. Burnett). Other Soybean Products (J. M. Smith and F. O. Van Duyne).

Martinenghi, G. B. 1971. "Physical Refining of Oils and Fats." Tipolitografia Corbella, Milan.

Introduction. A Short History of Physical Refining. Pre-refining. Deacidifying-Deodorization Distillation. Complete Refining Plants. Considerations on the Economy of the Refining Systems.

Mehlenbacher, V. C. 1960. "The Analysis of Fats and Oils." The Garrard Press, Champaign, Illinois.

Introduction. Fat Content. Estimation of Impurities. Stability. Specific Tests and Identification. Chemical Characteristics. Physical Characteristics. Composition.

Nielsen, K. 1956. "Studies on the Non-Hydratable Soybean Phosphatides." Nyt Nordisk Forlag-Arnold Busck, Copenhagen.

Introduction. Phosphorus Compounds in Plants and Especially in Oil-bearing Seeds. The Behavior of Phosphatides During the Oil Extraction Process. The Composition of the Phosphatides Analytical Methods. The Composition of Non-hydratable Phosphatides. Extraction Experiments. The Composition of the Hydratable Phosphatides. Methods of Industrial Extraction of the Difficultly Extractable Phosphatides. Conclusion. Summary.

Pacquot, C., Editor. 1979. "IUPAC Standard Methods for the Analysis of Oils, Fats and Derivatives." 6th Ed., Part I (Sections I and II). Pergamon Press, Oxford and New York.

Section I. Oleaginous Seeds and Fruits. Determination of Physical Characteristics, Analysis of the Seeds and Fruits. Analysis of the Oil Extracted from the Seeds and Fruits.

Section II. Oils and Fats. Determination of the Physical Characteristics. Determination of the Chemical Characteristics. Determination of the Principal Constituents. Determination of the Other Natural Constituents. Determination of the Quality and Stability. Determination of the Foreign Substances and the Additives.

Paoletti, R., G. Porcellati, and G. Jacini. 1976. "Lipids," in two volumes. Raven Press, New York.

Vol. 1 (Biochemistry). Plenary Lectures. Chemistry and Biochemistry of Molecular Species of Lipids. Lipases, Phospholipases, Lipoperoxidases, and Lipoxigenases. Physical Properties and Lipid Composition of Membranes. Lipids and Foodstuffs. Newly Discovered Lipids.

Vol. 2 (Technology). Problems in Olive Oil Research (G. Jacini). Sterols in the Chemistry and Technology of Edible Fats and Oils (A. Seher). A New Method for Fractionation of Edible Oils (A. Letan and L. Koslowsky). Physical Properties of Fats Used in Manufactured Foods (K. G. Berger). Analysis of Nonionic Food Emulsifiers by Liquid Chromatography (K. Aitzetmüller). Determination of the Positions of Double Bonds in Unsaturated Fatty Acids by ^{13}C and Proton NMR Spectrometry (J. Bus and D. J. Frost). Deuterium Magnetic Resonance and Spin-Label EPR Studies of Lipid Bilayers (J. Seelig). Raman Spectroscopy for Studies of Interface Structure in Aqueous Dispersions (K. Larsson). New Dimensions in Quantitative Thin-Layer Chromatography (K. D. Mukherjee). An Oxygen-Rich Atmosphere for Direct Determination of Metal Traces in Oils by Flameless Atomic Absorption (A. F. Prevot and M. K. Kundu). Multidisciplinary Approach of the Agricultural Laboratory of CNEN for the Improvement of Olive Oil Production (A. Bozzini). Analytical Problems in the Ascertainment of Olive Oil Genuineness (U. Pallotta). *Dacus oleae*-Attracting and -Repelling Substances (E. Fedeli, F. Camurati, N. Cortesi, G. Favini, U. Cirio, and G. Vita). Medium-Chain Triglycerides: Characteristics and Uses (U. Bracco). Influence of the State of Nutrition

the Fat on Fat Crystallization and on Physical Properties of Fatty Foods (P. Walstra). Technological and Nutritional Aspects of Fats and Emulsifiers in Baked Goods (A. Menger). Development of Biodegradability Tests in the United Kingdom (G. E. Eden). The Performance of Anionic Detergents in Biodegradation Flask Tests (E. R. Michelsen). Raw Materials for Synthetic Detergents (A. D. Hall). Biodegradation of Surface-Active Agents (V. Treccani). Possibilities of Semi-automatic Twin Trap Gas-Liquid Chromatograph (A. F. Prevot and F. X. Mordret). Effect of Nonlipidic Substances on Rancid Off-Flavor of Lipids (J. Pokorny). Effect of Different Fats and Oils on the Flavor of Simulated Deep Fat Fried Foods (S. S. Chang and M. M. Blumenthal). Structural Variations Effected in Vegetable Oils by Frying (E. Fedeli, A. Gasporoli, G. Favini, and A. Daghetta). The Hazard Involved in Loss of Drug Potency After Esterification with Long-Chain Fatty Acids (L. Borka). Lipids in Physiological Regulations (M. Cambrai). Lipid Metabolism in Surfactant-Induced Hyperplasia of the Epidermis (C. Prottey). Physicochemical Properties of Fatty Substances in Connection with Their Use in Cosmetics (G. Vanlerberghe). Production of Thin Lipid Films (I. Bonadeo and G. L. Variati). Hydrogenation and Transesterification (A. Seher). Low-Calorie Spreads (R. Ohlson).

Schwitzer, M. K. 1956. "Margarine and Other Food Fats. Their History, Production, and Use." Interscience Publishers, Inc., New York.

Swern, D., Editor. 1964. "Bailey's Industrial Oil and Fat Products," 3rd Edition. Interscience/Wiley, New York.

Structure and Composition of Fats and Oils (D. Swern). Reactions of Fats and Fatty Acids (D. Swern). Physical Properties of Fats and Fatty Acids (D. Swern). Fats in the Diet (D. Swern). Sources, Utilization, and Classification of Oils and Fats (D. Swern). Composition and Characteristics of Individual Fats and Oils (D. Swern). Cooking and Salad Oils and Salad Dressings (K. F. Mattil). Plastic Shortening Agents (K. F. Mattil). Butter and Margarine (K. F. Mattil). Bakery Products and Confections (K. F. Mattil). Soap and Other Surface-Active Agents (A. J. Stirton). Paints, Varnishes, and Related Products (A. J. Stirton and D. Swern).

Swern, D., Editor. 1979. "Bailey's Industrial Oil and Fat Products," 4th Edition. Interscience Publishers, New York.

Vol. I. Structure and Composition of Fats and Oils (N. O. V. Sonntag). Reactions of Fats and Fatty Acids (N. O. V. Sonntag). Physical Properties of Fats and Fatty Acids (M. W. Formo). Fats in the Diet (M. W. Formo). Sources, Utilization, and Classification of Oils and Fats (N. O. V. Sonntag). Composition and Characteristics of Individual Fats and Oils (N. O. V. Sonntag). Handling, Storage, and Grading of Oils and Oil-Bearing Materials (F. A. Norris). Soap (E. Jungermann). Fat-Based Surface-Active Agents (E. Jungermann). Paints, Varnishes, and Related Products (M. W. Formo).

Vol. II. Hydrogenation (R. R. Allen). Fat Splitting, Esterification and Interesterification (N. O. V. Sonntag). Extraction of Fats and Oils (F. A. Norris). Refining and Bleaching (F. A. Norris). Cooking and Salad Oils and Salad Dressings (R. G. Krishnamurthy). Miscellaneous Oil and Fat Products (M. W. Formo). Analytical Methods (N. O. V. Sonntag). Environmental Aspects of Animal and Vegetable Oil Processing (G. N. McDermott).

United Nations Industrial Development Organization. 1977. "Guidelines for the Establishment and Operation of Vegetable Oil Factories." United Nations Publications, New York and Vienna.

The Sources of Vegetable Oils and Meals. Pre-Investment Considerations. Oilseed Processing. The Investment. Organization and Management. Case Studies.

United Nations Industrial Development Organization. 1977. "Information Sources on the Vegetable Oil Processing Industry." UNIDO Guides to Information Sources No. 7 (Revised edition). United Nations Publications, New York and Vienna.

I. Professional Trade and Research Organizations, Learned Societies and Special Information Services. II. Directories. III. Sources of Statistics, Marketing, and Other Economic Data. IV. Basic Handbooks, Textbooks and Manuals. V. Monograph Series. VI. Current Periodicals. VII. Current Abstracting and Indexing Periodicals. VIII. Proceedings, Papers and Reports.

IX. Specialized Dictionaries and Encyclopedias. X. Bibliographies. XI. Films and Film Catalogues. XII. Other Potential Sources of Information.

Vergroesen, A. J., Editor. 1975. "The Role of Fats in Human Nutrition." Academic Press, New York.

The Role of Fats in Human Nutrition: An Introduction (A. J. Vergroesen and J. J. Gottenbas). Epidemiological Data on Dietary Fat Intake and Atherosclerosis with an Appendix on Possible Side Effects (S. Heyden). Clinical Aspects and Therapy of Fat Malassimilation with Particular Reference to the Use of Medium-chain Triglycerides (K. Sickinger). Quantitative Effects of Dietary and Cholesterol on Serum Cholesterol in Man (R. B. McGandy and D. M. Hegsted). The Role of Fat in the Treatment of Diabetes Mellitus (A. J. Houtsmuller). Specific Effects of Types of Dietary Fat on Arterial Thrombosis (G. Hornstra). Specific Biological Effects of Polyunsaturated Fatty Acids (O. M. T. Houtsmuller). Cholesterol Absorption (G. S. Boyd). Linoleic Acid Intake and Vitamin E Requirement (F. C. Jager). Nutritional Aspects of Rapeseed Oil (R. O. Vles).

Waterman, H. I., with C. Boelhouwer and L. J. Revallier. 1951. "Hydrogenation of Fatty Oils." Elsevier Publishing Company, New York.

Weiss, T. J. 1970. "Food Oils and Their Uses." The AVI Publishing Company, Inc., Westport, Connecticut.

Chemical and Physical Properties of Fats and Oils. Commercial Oil Sources. Basic Processing of Fats and Oils. Chemical Adjuncts. Shortening--Introduction. Bakery Shortenings. Frying Shortenings and Their Utilization. Household Shortenings. Margarine. Mayonnaise and Salad Dressings. Peanut Butter. Confectionery Coatings. Imitation Dairy Products.

Wittcoff, H. 1951. "The Phosphatides," Reinhold Publishing Corporation, New York.

Nomenclature and Classification of Lipids. The Structure of Lecithin. The Structure of the Cephalin Phosphatides. The Structure of Sphingomyelin. The Structure of the Minor Phosphatides. The Purification

and Chemical Properties of the Phosphatides. The Physical Chemistry of the Phosphatides. Phosphatide Complexes. The Lysophosphatides and the Lecithinases. Synthesis of the Phosphatides. Extraction and Determination of Total Phosphatides. Determination of Individual Phosphatides and Related Compounds. Introduction to Plant Phosphatides. Phosphatides of Microorganisms and Lower Plants. Phosphatides of Cereals, Grains, and Oil-producing Plants. Phosphatides of Vegetables and Miscellaneous Plants. Introduction to Animal Phosphatides. Phosphatides of Normal Animal Organs and Tissues. Phosphatides of Eggs and Milk. Introduction to Biochemistry of the Phosphatides. General Aspects of Lipid Metabolism. The Phosphatides as Metabolic Elements. The Role of Phosphatide Hydrolysis Products in Metabolism. The Role of the Phosphatides in Pathological Conditions. Serological and Oxidative Functions of the Phosphatides. The Manufacture of Phosphatides. The Industrial Uses of Phosphatides.

JOURNALS AND PERIODICALS

The following periodicals are of interest to the oil processing technologist.

Chemistry and Industry. Society of Chemical Industry. 14 Belgrave Square, London SW1X 8PS, London, England.

Frequently contains papers of the Oils and Fats Group of the Society of Chemical Industry. Published twice monthly.

Fats and Oils Situation. Economics, Statistics, and Cooperative Service. U.S. Department of Agriculture, Washington, D.C. 20250.

Published in February, May, July, and October of each year. Articles provide mainly statistical information on U.S. soybean plantings, production, price, supply and disappearance, and exports.

Fette, Seifen, „Anstrichmittel. Deutsche Gesellschaft für Fettwissenschaft e.V., Soester Strasse 13, Munster/Westfalen, Germany.

Multilingual. Abstracts in German and English. Published monthly.

Grasas y Aceites. Instituto de las Grasa y sus Derivados. Avda Padre Garcia Tejero 4 (Heliopolis), Sevilla-12, Spain.

Table of Contents and Abstracts are in Spanish, English, French, and German. Some articles are in English. Published monthly.

Journal of the American Oil Chemists' Society, American Oil Chemists' Society, 508 South Sixth Street, Champaign, Illinois 61820.

Contains news and review articles as well as research papers on fats, oils, soaps, detergents, and cosmetics. Formerly published as Oil and Soap (Chicago), 1932 to 1947. Published monthly.

Oil Mill Gazetteer. Official organ of International Oil Mill Superintendents and Tri-States Oil Mill Superintendents Association, 6633 Hilcroft, P.O. Box 35423, Houston, Texas 77035. Published monthly.

Oil World. Mielke and Co., Postfach 153, 21 Hamburg 90, West Germany.

Information service for statistical analysis of the world markets of oilseeds, oilmeals, vegetable, animal and marine oils and fats. Text and summaries in English. Published weekly.

Oleagineux. Revue internationale des corps gras. Institut de Recherches pour les Huiles et Oleagineux. 8, Square Petrarque, Paris XVIe, France.

Titles and abstracts in French, English, and Spanish. Lead articles translated into English and sometimes into Spanish as well. Published monthly.

Revue Francaise de Corps Gras. L'Institut des Corps Gras (ITERG). 5, bd de Latour-Maubourg. 75007 Paris, France.

Table of Contents in French and English. Published monthly.

La Rivista Italiana delle Sostanze Grasse. Sta-

zione Sperimentale per le Industrie Degli Oli e dei Grassi Via Giuseppe Colombo, 79-20133 Milano, Italy.

Abstracts in Italian and English. Published monthly.

Soybean Digest. American Soybean Association. P.O. Box 27300, St. Louis, Missouri 63141.

Published nine times a year. Articles directed mainly to the American farmer.

Yukagaku. The Japan Oil Chemists' Society. Yushi Kogyo Kaikan, 13-11, Nihombashi 3-Chome, Chuo-ku, Tokyo 103, Japan.

Titles, abstracts, and occasionally full text in English as well as Japanese. Published monthly.

ASSOCIATIONS

American Soybean Association
P.O. Box 27300
St. Louis, Missouri 63141
Tel. No. (314) 432-1600

Association for Dressings and Sauces
c/o Robert H. Kellen Co.
64 Perimeter Center E. Sta. 790
Atlanta, Georgia 30346
Tel. No. (404) 393-1340

Institute of Shortening and Edible Oils
1750 New York Ave.
Washington, D.C. 20006
Tel. No. (202) 296-7960

National Association of Margarine Manufacturers
1725 K Street, N.W., Suite 1202
Washington, D.C. 20006
Tel. No. (202) 785-3232

National Soybean Processors' Association
1800 M Street, N.W.
Washington, D.C. 20036
Tel. No. (202) 452-8040